

Problem Set 1

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1 Data Description

The U.S. Natality data (2016) are curated by National Bureau for Economics Research (NBER) and can be accessed via the website of NBER (<http://nber.org/data/vital-statistics-natality-data.html>) in Stata, SAS and CSV format. The data are collected by Centers for Disease Control and Preventions National Center for Health Statistics (NCHS), which contain demographic and health data for births occurring from 1968. Papers that use this data include:

1. Almond, Douglas, and Lena Edlund. "TriversWillard at birth and one year: evidence from US natality data 19832001." *Proceedings of the Royal Society of London B: Biological Sciences* 274, no. 1624 (2007): 2491-2496.
2. Davidoff, Michael J., Todd Dias, Karla Damus, Rebecca Russell, Vani R. Bettgowda, Siobhan Dolan, Richard H. Schwarz, Nancy S. Green, and Joann Petrini. "Changes in the gestational age distribution among US singleton births: impact on rates of late preterm birth, 1992 to 2002." In *Seminars in perinatology*, vol. 30, no. 1, pp. 8-15. Elsevier, 2006.

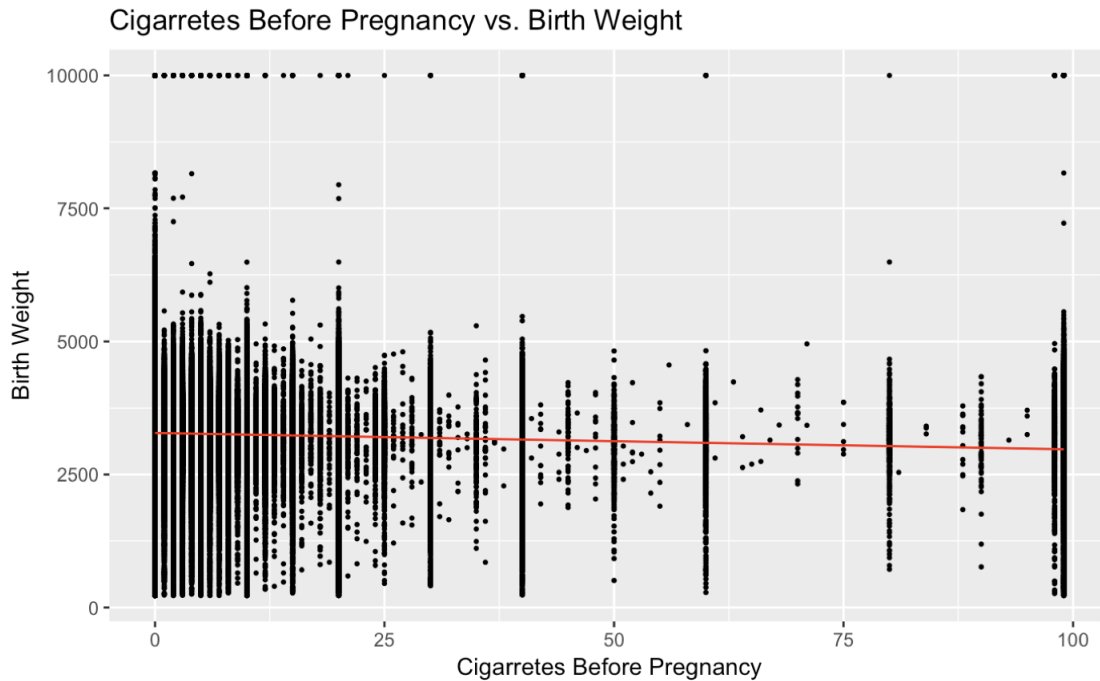
The U.S. Department of Health and Human Services issues The U.S. Standard Certificate of Live Birth as the principal means attaining uniformity in the content of the documents used to collect information on births in the United States. Prior to 1972, data are based on a 50-percent sample of birth certificates from all States. Beginning in 1972, data are based on a 100-percent sample of birth certificates from some states and on a 50-percent sample from the remaining States.

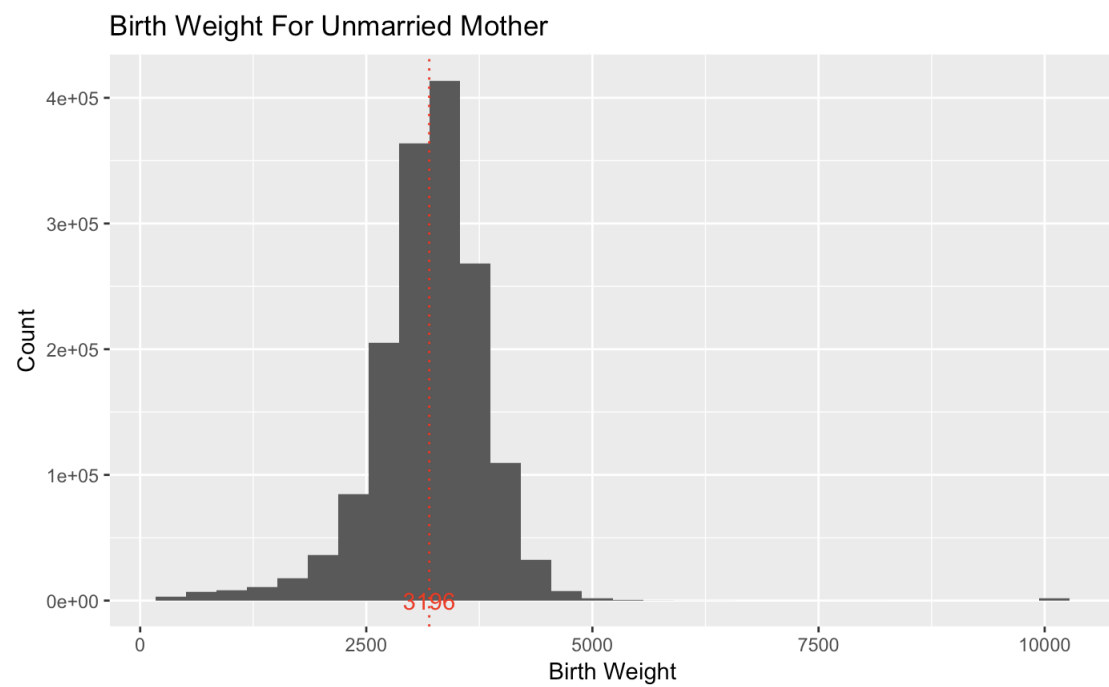
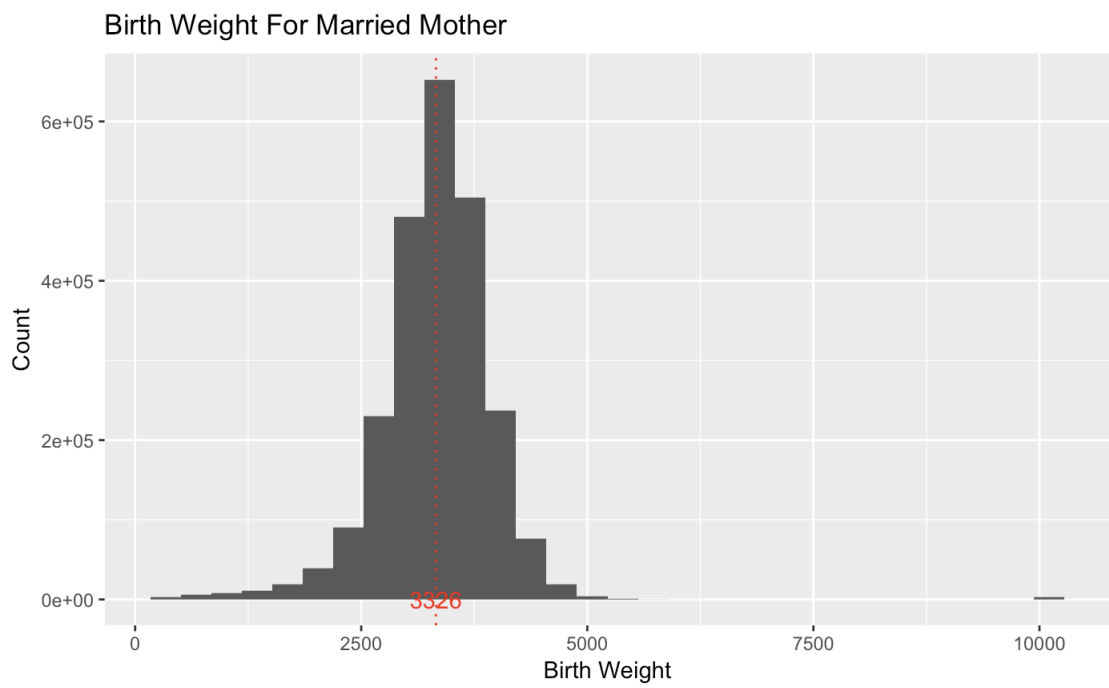
Below are graphs generated from this data set. The dotted lines are the mean of the birth weight for the corresponding group.

	bfacil	mager	dmar	meduc	cig0_r	bmi
1	Min. :1	Min. :12	Min. :1	Min. :1	Min. :0	Min. :13
2	1st Qu.:1	1st Qu.:24	1st Qu.:1	1st Qu.:3	1st Qu.:0	1st Qu.:22
3	Median :1	Median :29	Median :1	Median :4	Median :0	Median :26
4	Mean :1	Mean :29	Mean :1	Mean :4	Mean :0	Mean :29
5	3rd Qu.:1	3rd Qu.:33	3rd Qu.:2	3rd Qu.:6	3rd Qu.:0	3rd Qu.:31
6	Max. :9	Max. :50	Max. :2	Max. :9	Max. :6	Max. :100

Table 1: Summary Statistics

- bfacil: Birth Place
- mager: Mothers Single Years of Age
- dmar: Marital Status
- meduc: Mothers Education
- cig0_r: Cigarettes Before Pregnancy Recode
- bmi: Body Mass Index





2 Paper Critique

The paper "Performing Authority: Communicating Judicial Decisions in Lower Criminal Courts" investigates the how magistrates perform their authority to communicate their decisions in criminal matters in open court. The paper argues that though the the legitimacy of judicial decisions is formally based in law, conventionally requires the judicial officers to perform adjudication impartially, impersonally and unemotionally, in lower criminal courts, the high volume of cases, time pressures, unrepresented participants and visible human emotions makes this requirement unlikely to achieve. The key question to address is whether sentencing decisions are communicated in distinct ways.

The analysis uses data from a national court observation study of criminal cases in Australian lower courts. The three dimensions studied to measure the face-to-face delivery of decisions are: 1. whether the magistrate looks at and/or speaks directly to the defendant; 2. the magistrates ordering of the decision and the reasons, and 3. how these encounters are affected by the presence of a legal representative. The data consists of 1287 matters in total, with information relating to the defendant, his/her offences, legal representation, aspects of the magistrates interaction, and information for decisions and outcome. Observations cover 27 different magistrates, 30 different court sessions in 20 different locations.

The paper refers to Max Weber's theory of authority, which describes ties authority to legitimacy and recognized that accomplishing authority normally requires the belief in legitimacy'. Though conventionally, the performance of authority entails impartial adjudication, the setting of courtroom typically involves some face-to-face interactions that make the actual exercise hard to follow the legal norms and procedure. Hence, the accomplishment of authority in the courtroom relies on institutionally specific obligations as well as everyday strategies. In the courtroom it falls to the judiciary to cultivate this belief and do authority. Judicial officers might seek to accomplish legitimacy by relying on the conventional model of legal authority that emphasizes impersonality and formal legal rules as well as a more engaged, personal encounter with the defendant.

The paper is a descriptive study. Conclusion are derived by comparing statistics in different cases of interest: cases with/without sentencing decisions and cases with/without the presence of a legal representative. In matters with sentencing decisions, the magistrate are more likely to look at and/or speak directly to the defendant (look: 79% vs. 47%, speak: 87% vs. 51%), and in 72% of the time they provide reasons with sentencing decision relative to only 22% for the non-sentencing cases. Distinctions also found in cases with the presence of a legal representative. While magistrates provide reasons and commentary in the lead up to announcing the sentencing decision more often if a defence representative is present (74%) than absent (54%). The magistrate infrequently gives a decision-only sentence in matters when both defendant and their legal representative are present. This occurs in only one-

fifth of matters (20%). The authors also conducted chi-squared tests to provide evidence of these distinctions in behaviors. There is no fancy computational method besides descriptive statistics and tests used in this paper.

While the empirical results comply with the authors' hypotheses, its internal/external validity looks dubious. First of all, though the total number of matters studied seems large enough, the data contain only 27 magistrates that are hardly sufficient to derive any statistical inference, since the individual-specific characteristics can greatly affect the validity of the result. In addition, all the matters studied are from Australian low courts, while it might be of interest to study what is the case in high court, where the performance of authority is more closely supervised and there is greater demand for judicial officers to accomplish legitimacy. Besides the abovementioned, potentially, with noticing two researchers recording in the courtroom, the behavior of these magistrates could be changed. This problem might be addressed if the researchers could get access to the videos of the previous lawsuits. The author found significant distinct behavior of magistrates in dealing with different cases, it might be interesting to investigate what the defendants behave in response to these non-conventionally way of communication. As described by the paper, the authority forms in the dynamics of the interactions between judicial officers and defendants, it might be interesting to study whether the authority is really enhanced by these "personal contacts".